

REMARKS

Claims 1-45 were pending in the Application as of the Office Action dated November 18, 2008, with claims 3, 4, 9-21, and 31-33 having been previously withdrawn. Claims 1, 24-30, 36-37, 39-40, 43, and 44 are amended with this Response. Claims 6, 7, 23, 54, and 35 are cancelled. Applicant respectfully thanks the Examiner for acknowledging Priority.

Objections to the claims

Claims 24-30, 34-37, 39, and 40 are objected to for informalities. In Response, Applicant respectfully amends these claims.

Claim Rejections Under 35 U.S.C. §112, second paragraph

Claims 23-30, 34-41, and 43 are rejected under 35 U.S.C. §112, second paragraph as being allegedly indefinite. The Examiner takes specific issue with the “filter mask” of claim 23 (now presented as “at least one filter mask” in amended claims 1 and 44). Applicant respectfully points out that “at least one filter mask” has antecedent basis within claims 1 and 44 (at lines 10 and 12 respectively), as taken from claim 7.

In addition, Applicant respectfully asserts that the claimed “mask pattern” is not an equivalent of the claimed and described “filter mask.” The mask pattern was defined in the now cancelled claim 7 (which has been amended into claims 1 and 44), wherein predetermined (i.e. selected) light modulators form a mask pattern. Therefore, the expression “mask pattern” denotes a distinct quantity of light modulators.

Furthermore, as claimed and described, the establishment of filter masks partly takes into consideration knowledge of the intensity provided by each light modulator, the energy provided by a row of light modulators, or other parameters. Such parameters might include knowledge of the printing plate sensitivity, the modulation raster image, the scanning speed, or the desired intensity level, (please see page 10, second paragraph of the international

publication).

Applicant lastly notes that claim 43 has been amended to address the alleged confusion set forth by the Examiner in the Office Action.

Claim Rejections Under 35 U.S.C. §102(b)

Claims 1, 2, 5-8, 22-30, and 34-45 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Publication No. 2001/0035944 to Sunagawa. Applicant respectfully traverses this rejection.

Applicant notes that “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Applicant’s claims 1 and 44 recite, *inter alia*,

“wherein said at least one filter mask is changed over time,
said changing of said filter mask being at least partly determined by speed of relative movement between said at least two illumination points and said at least one spatial light modulator.”

Sunagawa does not teach a filter mask that is changed over time, and certainly does not teach the changing to be at least partly determined by speed of relative movement between at least two illumination points and at least one spatial light modulator. On the contrary, Sunagawa only mentions a determination based on light source stability. Referring to paragraph 0074, Sunagawa merely mentions that the frequency of determining those pixel that are to be rendered OFF depends upon stability of the light source. As such, the pattern of pixels rendered OFF is determined one time, just before the exposing

operation. In fact, if the exposing system has relatively high operation stability, Sunagawa teaches a reduction of updating frequency for the pattern of pixels rendered OFF.

For at least the above reason, Applicant respectfully asserts that Sunagawa neither teaches nor suggests a changing over time, or a changing over time that is at least partially dependent on speed of relative movement between at least two illumination points and at least one spatial light modulator. Accordingly, Sunagawa does not anticipate Applicant's claims.

In addition, Applicant respectfully asserts that the amended claims 1 and 44, and those claims that depend respectively therefrom, would not be obvious over Sunagawa. In support of this assertion, Applicant respectfully notes that, in an exemplary embodiment of that which is claimed, determination of temporal change of the filter mask at least partly by means of the speed of the relative movement between two illumination points and the spatial light modulator (SLM) (i.e. hence by means of the scanning speed) allows the overall flexibility and efficiency of the entire exposure system to be enhanced. This way, the exposure system can be individually adapted to different scanning modes, such as continuous or stepwise movement of the illumination points relative to the SLM. Also, the system may better cope with temporal and spatial changes in the intensity of the light source, and may even be better adapted to the sensitivity or other parameters of the light sensitive surface.

In further accord with an exemplary embodiment of that which is claimed, the temporal change of the filter mask can even be performed in real time, during use of the exposure system, without the necessity of conducting another row/column-wise energy measurement of pixels to be rendered OFF. The adaptation of the filter mask during use may for instance be performed by means of switching between different predefined filter masks.

Such a switching procedure is taught or suggested in the cited prior art document. In particular Sunagawa only teaches to modify the pattern of rendered OFF pixels on the basis of light source instabilities. However, the modification scheme disclosed in Sunagawa is by no means correlated to the scanning speed of the exposure system, and there is nothing disclosed in Sunagawa that would suggest modifying the Sunagawa system to incorporate that which is claimed by Applicant.

On the contrary, Sunagawa (at [0074]) strictly teaches a modification scheme wherein the pixels are rendered OFF according to a predetermined time schedule, e.g. once a day. A modification of the pixel pattern always implies a complete energy measurement. Hence, the switching to a different pattern of rendered OFF pixels is rather time consuming in the prior art. This switching cannot be conducted and executed during use of the exposure system, and thus, the Sunagawa system would be rendered inoperable if it were to be modified include the changing recited in Applicant's claims.

By means of changing the filter mask according to the scanning speed, which implies a switch of the filter mask between pre-determined patterns, the exposure system according to claim 44 can promptly react to modified systems parameters that would otherwise affect the exposure of the light sensitive surface. Since the person skilled in the art is not motivated by Sunagawa to implement such an adapting function, the subject matter of amended claims 1 and 44 would not be obvious over Sunagawa.

Conclusion

All of the objections and rejections are herein overcome. In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. No new matter is added by way of the present Amendments and Remarks, as support is found throughout the original filed specification, claims and drawings. Prompt issuance of Notice of Allowance is respectfully requested.

The Examiner is invited to contact Applicant's attorney at the below listed phone number regarding this response or otherwise concerning the present application.

Applicant hereby petitions for any extension of time necessary under 37 C.F.R. 1.136(a) or 1.136(b) for entry and consideration of the present Reply.

If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicant's attorneys.

Respectfully submitted,

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